JTIC
Justice Technology Information Center

Making Decisions About Criminal Justice Technology:

Needs and Challenges

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INTRODUCTION

EurekaFacts, a full-service market and social science research firm, undertook a two-part study on behalf of the National Institute of Justice (NIJ) and its Justice Technology Information Center (JTIC) in 2017 and 2018. The purpose of the research was to gain a clearer picture of who the decision makers are in the three criminal justice communities of practice (CoPs) – law enforcement, corrections and courts. The study also examined the processes they use to identify needed technology and make their decisions, the sources of information they use, the challenges they face, and what they need to help support their technology-related decision-making and procurement processes.

For more than 30 years, the National Law Enforcement and Corrections Technology Center (NLECTC) system, of which JTIC is a part, has acted as a hub for information and research on technology procurement. However, in many cases, CJ practitioners either may not be aware of its services, or are unable to navigate through the large volume of research and information available through various resources, including NLECTC and JTIC.

Consequently, in collaboration with JTIC, EurekaFacts designed a multi-phase research study to investigate how CJ practitioners collect and use information to support technology-related procurement, implementation and decision-making processes. The first phase identified the technology decision makers, the processes they use to identify needed technologies and how they make crucial decisions. In addition, these professionals identified the primary sources of information they use for technology selection, and the information needs and challenges they encounter. In the second phase, EurekaFacts conducted more in-depth follow-up interviews. This document presents a summary overview of the survey and its findings, and includes EurekaFacts' full reports on both phases as appendixes.

CRIMINAL JUSTICE AGENCIES TECHNOLOGY-RELATED DECISION-MAKING ASSESSMENT SUMMARY

Criminal justice (CJ) agencies are tasked with making technology acquisition decisions that impact their ability to achieve their missions, as well as manage people and situations safely and efficiently. Significant technological innovations occur at an exponential rate and CJ agencies struggle to keep up. Thus, they have been replacing or upgrading technology more often than they did in the past.

In Phase I of this study, researchers conducted in-depth telephone interviews with 27 U.S. criminal justice practitioners representing the three communities of practices (CoPs) in September and October 2017. Participants discussed methods used by CJ agencies to find, collect and use information to support technology procurement, implementation and policy decisions. Detailed findings are available in Appendix A: National Institute of Justice Criminal Justice Agencies Technology-Related Decision-Making Assessment Interim Report.

Interview participants from the law enforcement CoP included professionals from medium-size agencies (10 – 99 officers), large agencies (100 – 999 officers) and very large agencies with 1,000+ officers. Participants from the courts CoP included representatives of courts of appeals, district courts, state courts and the National Center for State Courts. Corrections participants included representatives of city and county jails, state prisons, and state, county and city departments of corrections. Professionals representing rural, suburban and urban criminal justice agencies across all CoPs were included.

In Phase II, researchers conducted re-contact telephone interviews with 18 of the original criminal justice practitioners, as well as three additional participants, for a total of 21 participants. Prior to the interviews, participants read the Phase I report, and during the interviews, participants rated

and discussed the key Phase I findings on the main challenges common across all CoPs. Next, based on their experiences, they prioritized the known needs and solutions for effective technology information gathering and selection. They then offered feedback on the structure and types of information to include in the development of a criminal justice clearinghouse, on the financing of its development and maintenance, and on if and/or how their agencies might contribute. Detailed findings are available in Appendix B: National Institute of Justice Criminal Justice Agencies Technology-Related Decision-Making Assessment Report (Draft).

Both reports include executive summaries that provide an overview of the information in its entirety, detailed information including tables and figures, conclusions or recommendations, and the survey instruments used in conducting the research.

Phase I

Across all types of agencies included in this study, interview results identified several similarities in general processes and methods used to identify needed technologies, to search for technology-related information, and to conduct the procurement process. To a lesser degree, similarities were found in decision-making processes. Researchers observed the biggest agreement in sources of technology-related information.

Almost all interviewed CJ professionals reported the following four main resources: conferences/associations, informal networks, vendors and online search engines. This agreement indicates a crucial role for these four types of resources and reveals a considerable information gap and challenge in identifying needed information.

Even though each CoP encounters its own unique difficulties, they all stated the need for a central repository or clearinghouse. CJ practitioners struggle with locating and sorting through the large amount of technology-related information available. They reported that it is difficult to locate relevant, unbiased information, and it is especially challenging to identify technology to meet specific needs and solve specific problems.

Technology Selection

Results indicate that there are several common factors driving identification of technology needs:

- **Needs assessments.** These may include front-line staff concerns and suggestions as well as formal working or technology groups.
- **Strategic planning.** Larger agencies, especially, conduct formal needs assessments to inform technology upgrades, future operations planning, and development of goals and vision.
- **Modernization.** CJ agencies want to reap the benefits of longer-term cost savings in operations or labor, which requires timely update or replacement of obsolete or worn-out equipment.
- **External pressures.** Political or community pressures may drive the need to acquire new technology, such as body-worn cameras. Court systems specifically may receive mandates from state or local government.

Technology Information Sources

Resources most often reported include:

- **Conferences.** Conferences, seminars and vendor trade shows are good venues for making contact with peers and sharing solutions.
- **Networks.** In addition to sharing with peers within and outside their own agencies formally at meetings, agencies also find informal networking through conversations and emails useful.
- **Search engines and websites.** CJ agencies use online searches as well as specific vendor and advisory association websites. They find identifying the “right” keyword sometimes a challenge.
- **Publications (print and online).** CJ professionals also use publications to search for information about technology solutions, either as part of their online or as part of their regular industry-related reading.
- **Vendors.** CJ professionals may contact vendors with whom they have a positive relationship. They also may accept a vendor cold call, but do not prefer this method of contact.
- **Other agencies’ technology use.** CJ professionals reported seeking information on how other agencies use technology.

Decision-Making Process

A general pattern of technology-related decision-making processes is driven by:

- **Agency size.** Larger agencies have more hierarchical levels and more personnel involved in the decision-making process. Decision making in smaller jurisdictions is often controlled by, or starts and ends with, senior leadership.

- **Technology cost.** If an expenditure falls within the agency's operating budget, senior leadership makes the decision. Otherwise, the request is sent to the agency's governing body for authorization.

After summarizing the above areas across the entirety of agencies surveyed, the report breaks them down specifically and in detail by CoP. Law enforcement results begin on p. 16; corrections, on p. 21; and courts, on p. 25.

Information Needs and Challenges

One of the most critical difficulties reported by CJ practitioners is searching through a multitude of sources and resources, and the corresponding large amount of technology-related information. CJ practitioners also struggle with identifying clear descriptions or simple demonstrations of products when faced with materials containing overwhelming technical details or a constant flow of sales pitches from vendors. Also, small agencies tend to have fewer specialized staff or may not have available personnel solely dedicated to technology issues.

CJ practitioners also reported other challenges:

- **Technology/product information.** Participants indicated they need clear, easy-to-understand and objective (or unbiased) product descriptions and a way to compare similar technologies.

- **Multiple and de-centralized resources.** Respondents need a centralized resource where they can educate themselves about technology advances and stay up to date.

- **Information inundation.** CJ agencies find searching through a multitude of sources and resources, as well as large amounts of technology-related information, to be challenging.

- **Financial constraints.** Professionals in all three CoPs indicated that they cannot acquire all of the technology they need due to budget limitations.

- **Implementation delays.** Lengthy research and procurement processes can result in technology that is outmoded before it is put into use.

Conclusions

The report identified the following four strategies to deliver information to the practitioners:

- **Clearinghouse.** A centralized database with objective product information, reviews and specifications.
  - Directory of the types and suppliers of CJ products, equipment and services.
  - Organization by solutions to specific CJ needs.
  - Product durability, longevity, maintenance and operation costs, and needs in general and per specific application.
  - Purchase costs, and if relevant, additional costs for installation, training and replacement.
  - Funding sources, including resources on how to write grants and proposals.
  - Networking/collaboration forum, such as a discussion board.
- **Collaboration/communication.** Respondents noted a need for more coordination across different departments, jurisdictions and CoPs.

- **Vendor information.** Participants reported a need for information about the capabilities, history and past performance of specific vendors.

- **Awareness and education campaign.** This campaign would raise awareness and educate CJ practitioners about available technology-related sources of information and funding, future technological development and what CoP-specific needs those technologies may meet. The clearinghouse should be publicized.

Phase II

The objectives of this phase of the study included:

1. Obtain respondent validation regarding the results of the Phase I investigation.

2. Prioritize the identified needs and challenges.

3. Collect feedback on the financing for, structure of and types of information to include in a criminal justice technology information clearinghouse.

Validation of Phase 1 Findings

Technology Needs Identification/Sources of Information/Factors That Affect Decision-Making

As part of the Phase I reporting, criminal justice professionals were asked for their input on each of the following: (1) how to identify technology needs, (2) how to identify sources of information related to their technology needs and (3) the factors that impact technology decision-making. The Phase I reporting on these queries was presented to participants during Phase II of the study to review and communicate their agreement or disagreement with the results, and why.

CJ professionals overwhelmingly supported the findings in these three domains, across CoPs and by agency size. All participants expressed agreement with the methods identified for how technology needs are determined and with the factors identified that impact decision making. All but one participant agreed with the recommended sources of information for learning about and purchasing technological needs.

Identification and Prioritization of Needs, Challenges and Solutions

CJ professionals largely support how the Phase I report characterizes the needs and challenges they face. All participants expressed agreement with the four major challenges and one primary need identified.

Of the major challenges and needs facing technology decision-makers, financial constraints are the issue cited most often. Fully twelve of 21 participants named this as the most important challenge they face and another five called it the second or third most important challenge. The other high-priority needs and challenges were 'implementation delays' and the need for 'product information.'

Proposed Solutions

All criminal justice professionals expressed agreement with the four primary recommendations. Most court officials strongly agree with the primary recommendations (four of six), followed by corrections personnel (three of seven) and law enforcement participants (three of eight). By type of agency, strong agreement with the identified recommendations is shared evenly among all levels of government and jurisdictions.

Feedback and Details About the Clearinghouse

Usefulness of Clearinghouse

Across all three CoPs, respondents reported that a clearinghouse would offer a single place to find and assess needed technologies, with several participants referring to it as "a one-stop shop." Content must be accurate and up to date. The law enforcement and corrections CoPs also emphasized the value of the clearinghouse in terms of having details about the different products available, such as how the technology can be used, compatibility with existing systems and costs (purchase, implementation and maintenance). They also expressed a desire for facilitating communication, collaboration and networking through a message/discussion board.

Types of Information to Include

Respondents agreed that a "one-stop shop" should include comprehensive information about costs, including the price of the technology, the cost to implement it and any ongoing maintenance costs. Courts and corrections personnel want detailed product information, including what the technology does and how it can be used. Law enforcement personnel want to know the details about technology and product trends.

Law enforcement and corrections staff indicated a need for information about verified and vetted vendors. They also mentioned wanting information about where to find available surplus technology. In addition, they requested either examples of requests for proposals (RFPs) or at least RFP-appropriate language.

Types of Technologies

Participants named a wide range of tech resources, both general and specific to their CoP. Law enforcement professionals expressed a strong interest in mobile communications and visual technologies such as cameras for vehicles and drones, as well as license plate readers and body-worn devices. Those in corrections primarily mentioned physical infrastructure technologies for increased security and offender monitoring. Court professionals identified technologies for video conferencing and case management systems as well as technologies to ease the transition to paperless documentation.

Updating the Clearinghouse

Twice as many potential users said they would prefer a system with as much technology-related information as possible that is updated frequently (14 of 21) as said they would prefer a system with a finite amount of information that is reviewed and published on a periodic basis (7 out of 21).

Preferred Platform and Frequency of Use

All three CoPs indicated a strong preference for a desktop/tablet format as opposed to mobile applications or a paper periodical because of ease of use. Mobile applications were acceptable to all three groups, but some participants claimed they do not want to have to download an application.

In terms of frequency, all three overwhelmingly agreed they might use the clearinghouse one or two times a month. Some participants also suggested their frequency of use would vary depending on their needs.

As with the interim report, this report also provides detailed information on the findings specific to each CoP. Law enforcement results begin on p. 23; corrections, on p. 33; and courts, on p. 42.

Recommendations

All participants believe that having a clearinghouse would save considerable time and effort by consolidating information into a single knowledge repository. They also report that the clearinghouse would be a great way to meet identified needs, provided the product details and specifications are objective, accurate, up-to-date and aid CJ leaders in making informed decisions. In addition, the clearinghouse would foster collaboration and networking, both within and outside of their own CoP, through the discussion board and user ratings. Although professionals from all three CoPs recognize the value of such a clearinghouse, there was some variability in the kinds of support (e.g. financial or staff resources), if any, they would be able to provide.

Additionally, during discussions about the clearinghouse, several participants mentioned the Integrated Justice Information Systems (IJIS) Institute and JUSTNET as valuable resources that provide a similar service and might be great resources to collaborate with and learn from when building the clearinghouse. In terms of funding, the participants suggested that partnering with these organizations, along with CJ associations such as the International Association of Chiefs of Police, American Corrections Association and National Center of State Courts, might be a way to offset some of the costs for building and maintaining the clearinghouse.

The following recommendations and potential next steps have been identified:

1. Explore prototype development of an information clearinghouse.

2. Create a scope of work and initial data architecture diagram for the IT infrastructure needed to build a clearinghouse.

3. Create a pricing estimate and revenue model for financing a clearinghouse, using the information compiled from interview data in this report and from financial information on the costs associated with related systems (e.g. JUSTNET).

4. Develop a clearinghouse task force composed of technology experts and leaders from CJ professional organizations (e.g. International Association of Chiefs of Police, American Correctional Association, among others) to serve as a stakeholder consortium to raise capital for development of the tool, to recruit personnel with the appropriate IT development skill sets and to raise awareness through advertising channels and education campaigns.